

Amendments to the Specification:

Please replace the Abstract with the following amended paragraph:

~~Method, systems and apparatus for a flexible compression architecture utilizing internal cache residing in main memory circuits~~ In one embodiment, a system includes a main memory including a compression cache to store uncompressed data, where the compression cache is organized as a sectored cache having on-die associated tags. On a tag match to an associated tag, a hit signal is sent to a memory controller coupled to the main memory to schedule an uncompressed data access from the compression cache. A compressed memory may be present to store a plurality of compressed data. Also, a higher priority may be assigned to read operations of the compressed memory in comparison to other operations to the compressed memory. Other embodiments are described and claimed.